

Title (en)
METHOD AND DEVICE FOR DIRECTIONAL CRYSTALLIZATION OF CASTINGS WITH ORIENTED OR MONOCRYSTALLINE STRUCTURE

Title (de)
VERFAHREN UND VORRICHTUNG ZUR GERICHTETEN KRISTALLISATION VON GUSSSTÜCKEN MIT ORIENTIERTER ODER EINKRISTALLINER STRUKTUR

Title (fr)
PROCÉDÉ ET DISPOSITIF POUR LA CRISTALLISATION DIRECTIONNELLE DE PIÈCES COULÉES À STRUCTURE ORIENTÉE OU MONOCRISTALLINE

Publication
EP 4084918 A1 20221109 (EN)

Application
EP 20859647 A 20201215

Priority
• PL 43248619 A 20191231
• PL 2020050094 W 20201215

Abstract (en)
[origin: WO2021137708A1] The subject of the invention is a method and a device for oriented crystallization of castings with a oriented or monocrystalline structure. The method is based on the fact that during the transfer of the mould (1) containing the alloy from the heating zone (5) to the cooling zone (7), the temperature of the mould surface (1) above CLT1 and below CLT2 of the crystallization front (14) is measured in real time in at least two points, using contactless temperature meters (9a, 9b), with at least one of the lowest points is located in the cooling zone. The device has at least two contactless temperature meters (9a, 9b) installed in the chamber (2), at least one (9b), the lowest, located in the cooling zone (7).

IPC 8 full level
B22D 27/04 (2006.01); **C30B 11/00** (2006.01)

CPC (source: EP)
B22D 27/04 (2013.01); **B22D 27/045** (2013.01); **C30B 11/003** (2013.01); **C30B 11/006** (2013.01); **C30B 29/52** (2013.01)

Citation (search report)
See references of WO 2021137708A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2021137708 A1 20210708; CN 115135433 A 20220930; EP 4084918 A1 20221109; PL 242831 B1 20230502; PL 432486 A1 20210705

DOCDB simple family (application)
PL 2020050094 W 20201215; CN 202080097787 A 20201215; EP 20859647 A 20201215; PL 43248619 A 20191231